

a storage step of storing the encoded speech segment in a speech segment dictionary,
wherein one of the plurality of decoding methods uses one of a μ law scheme, scalar quantization, and linear predictive coding.

19. (Once Amended). A speech information processing apparatus for synthesizing speech by using a speech segment dictionary for holding a plurality of speech segments, comprising:

[selecting means for selecting, from a plurality of decoding methods, a decoding method of decoding a speech segment read out from the speech segment dictionary;]

decoding means for decoding the speech segment by using a decoding step of decoding the speech segment by using [the selected] a plurality of decoding methods for decoding the speech segment; [and]

calculation means for calculating a decoding distortion produced by said decoding means;

selection means for selecting a decoding method of the plurality of decoding methods in which the decoding distortion is smallest; and

speech synthesizing means for synthesizing speech on the basis of the decoded speech segment decoded by the decoding method selected by said selection means.

REMARKS

I. Status of the Claims

By this Amendment, claims 14 and 25-48 are canceled without prejudice and claims 1-3, 5, 13, 15 and 17 are amended. Accordingly, claims 1-13 and 15-24 are pending in this application. Claims 1, 2, 3, 5, 7, 13, 15, 17 and 19 are independent claims.

Applicants acknowledge the Examiner's citation of statutory authority as a basis for claim rejections.

II. Objections to Drawings

The Examiner has objected to the drawings as including reference signs not mentioned in the description. Applicant respectfully submits that the amendment to the specification overcomes the objection.

III. Objections to Specification

The Examiner has objected to the Abstract as starting with the letter "N." Applicant respectfully submits that the amendment to the Abstract overcomes the objection.

The Examiner has objected to the specification as not providing proper antecedent basis for the claimed "setting encoding methods" and has examined the claims with the understanding that setting is the unavoidable consequence of selecting and that the terms are therefore to be considered synonymous as used in the claims. Applicant does not agree that the specification lacks antecedent basis for the claimed "setting encoding methods," but concurs in the Examiner's understanding that the terms "setting" and "selecting" may be considered synonymous as used in the claims.

The Examiner has objected to the Summary Of The Invention as not a summary. Applicant respectfully submits that according to 37 C.F.R. § 1.73:

A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed.

Applicant respectfully submits that the present Summary of the Invention meets the requirement of 37 C.F.R. § 1.73 as set forth above.

IV. Objections to Claims

The Examiner has objected to claims 1, 5, 11, 17 and 23 for the stated reasons.

Applicant submits that the amendment to claim 1 resolves the objection to claim 1. With regard to the objections to claims 5, 11, 17 and 23, the applicant submits that the Examiner has not cited a statutory basis for rejection and that the claims as presented satisfy the requirements of 35 U.S.C. §§ 101 et seq, and therefore ask that the Examiner withdraw the objection as improper.

V. Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1-4, 6-10, 12-16, 18-25, 27, 30, 32, 35, 37, 40 and 42 under 35 U.S.C. § 103(a) as being unpatentable over **Gasper et al** (U.S.P. 5,278,943). The Examiner has rejected claims 26, 28-29, 31, 33-34, 36, 38-39, 41 and 43-48 under 35 U.S.C. § 103(a) as being unpatentable over **Gasper et al** in view of **Swaminathan et al** (U.S.P. 5,751,903).

Applicant submits that claim 1 is directed to a speech information processing method of generating a speech segment dictionary for holding a plurality of speech segments. The method comprises an encoding step of encoding a speech segment by using a plurality of encoding methods for encoding the speech segment; a calculation step of calculating an encoding distortion produced at said encoding step; a selection step of selecting an encoding method of the plurality of encoding methods in which the encoding distortion is smallest; and a storage step of storing the encoded speech segment encoded using the encoding method selected at said selection step, in the speech segment dictionary.

Gasper et al discloses conversion of an input text to a list of segments by decomposing the text into its equivalent phonetic features and the segmentation data may be created and stored utilizing any desired encoding method. However, **Gasper** does not teach or suggest calculating an encoding distortion and selecting an encoding method of the plurality of encoding methods in which the encoding distortion is smallest. Further, **Gasper** is silent on

calculating a decoding distortion and selecting a decoding method of the plurality of decoding methods in which the decoding distortion is smallest.

Therefore, we believe that the invention of independent claim 1 is not taught or suggested by **Gaspar**. For the same or similar reasons, we believe that the inventions of independent claims 2, 3, 5, 7, 13, 15 and 17 are also not taught or suggested by **Gaspar**.

Swaminathan et al discloses an encoding and decoding method for digitized speech signals by selectively utilizing backward prediction for the short-time predictor parameters and fixed codebook gain of a speech signal. The Examiner has not rejected any of the pending claims in view of **Swaminathan**, and we believe that the present invention is not taught or suggested by **Swaminathan**, or **Gaspar** in view of **Swaminathan**.

VI. Allowable Subject Matter

The Examiner has indicated that claims 5, 11, 17 and 23 are objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant acknowledges the allowable subject matter and respectfully submits that the amendment places the claims in condition for allowance.

VII. Request for Reconsideration

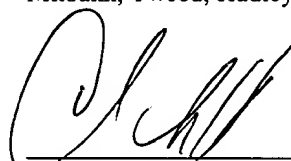
Applicant respectfully submits that the claims of this application are in condition for allowance. Accordingly, reconsideration of the rejection and allowance is requested. If a conference would assist in placing this application in better condition for allowance, the undersigned would appreciate a telephone call at the number indicated.

VIII. Authorization

Applicant includes herewith a petition for an extension of time. In the event that the Commissioner finds that a further extension of time is required, or an additional fee is

required, the undersigned hereby petitions for the additional extension of time and authorizes the Commissioner to charge any require fee, or credit any overage to the Deposit Account of Milbank Tweed (13-3250). A duplicate of this page is included.

Respectfully submitted,
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